

REMARKS

All pending claims 1-56 stand rejected under the present Office Action. In response, independent claims 1, 18, 33, and 40 have been amended for clarity. In view of these amendments and the arguments presented below, the claims are allowable over the cited references. Applicant respectfully requests reconsideration of the present application.

Claim Rejections – 35 U.S.C. § 112

Independent claims 1 and 40 are rejected under 35 U.S.C. § 112 for allegedly failing to particularly point out and distinctly claim the subject matter of the invention. Although Applicant disagrees that the original claims were unclear, claims 1 and 40 have been amended. Each claim now recites “a first threshold percentage of mobile stations in the first set” whose reverse link data rates are mobile-limited and “a second threshold percentage” for which the reverse link data rates are command-limited. There is ample support for these amendments in the specification. (See, e.g., ¶¶ [0030 – 0036].) Applicant submits that claims 1 and 40, as amended, meet the requirements of 35 U.S.C. § 112.

Independent claim 18 and dependent claims 22 and 23 are also rejected under 35 U.S.C. § 112 for failing to distinctly claim the invention. According to the Office Action, the limitation “if a targeted reverse link loading cannot be substantially maintained by broadcasting the rate control commands” is unclear, because it contradicts another limitation that recites “broadcasting rate control commands to adjust reverse link data rates ... and affect reverse link loading.” Applicant respectfully disagrees – there is no contradiction between these limitations.

Claim 18, as amended, recites that common rate control commands are broadcast to members of a set of rate-controlled mobile stations, for adjusting the reverse link data rates of the rate-

controlled mobile stations. The claim includes a recitation that this will “thereby affect reverse link loading by the rate-controlled mobile stations.” This is undoubtedly true – all other factors remaining equal, if only one mobile station receiving the rate-control commands responds by adjusting its reverse link data rate, then the reverse link loading is affected.

Another element of the claim recites that membership in the set of rate-controlled mobile stations is adjusted if “a targeted reverse link loading cannot be substantially maintained by broadcasting the rate control commands.” This does not contradict the previous claim limitation. As the specification explains, many of the mobile stations in the set may be unable to respond to the common rate control commands, because of limited power, a lack of data, or because they are already at the maximum supported rate. Thus, a sequence of common rate control commands may be effective to “affect reverse link loading,” but may be ineffective to maintain the reverse link loading at a targeted level.

Claims 18, 22, and 23 are not self-contradictory, and in fact are quite clear when read in light of the specification. Further claim 18, has been amended to clarify that the broadcasted rate control commands are common rate control commands. Claims 18, 22, and 23 meet the requirements of Section 112; the rejections under this section should be withdrawn.

Claim 33 is rejected under 35 U.S.C. § 112 because the limitation “the rate control commands” lacks antecedent basis. Claim 33 has been amended; as amended, claim 33 meets the requirements of Section 112.

Claim Rejections – 35 U.S.C. § 102

Claims 33 and 34 are rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Chen (US 5,923,650). Claim 33 has been amended to more clearly point out the claimed invention. In view of these amendments, it is apparent that Chen is unrelated to the current invention and does not disclose claims 33 and 34. These rejections should be withdrawn.

Claim 33 recites a method for reverse link rate control, in which a mobile station responds to common rate control commands broadcast by a serving base station if in a first mode, and does not respond to the common rate control commands if in a second mode. Chen does not teach the use of common rate control commands broadcast by a serving base station. Further, Chen does not teach that commands broadcast by a serving base station are ignored in one mode and acted upon in another. At most, Chen teaches that commands broadcast by base stations other than the serving base station are ignored. Finally, Chen does not teach operating in the first or second modes described above according to an indication received from the network. The rejections of independent claim 33 and dependent claim 34 should be withdrawn.

Claim Rejections – 35 U.S.C. § 103

Claims 18, 21, 26, and 33-35 stand rejected under 35 U.S.C. § 103(a) as allegedly obvious over Lee (US 7,031,741). Applicant respectfully traverses these rejections. Especially in view of the current amendments to independent claims 18 and 33, Lee neither teaches nor suggests the claimed invention.

With respect to independent claim 18, Lee does not teach the broadcasting of common rate control commands to adjust reverse link data rates of mobile stations belonging to a set of rate-controlled mobile stations. In contrast, Lee exclusively discusses dedicated rate control. (See,

e.g., Lee column 5, lines 26-38.) Furthermore, Lee does not teach or suggest adjusting membership in a set of rate-controlled mobile stations if a targeted reverse link load cannot be substantially maintained by broadcasting the rate control commands.

The Office Action acknowledges that “Lee does not teach loading of the reverse link” (Office Action, p. 5), but then asserts that “loading of an existing communication link is well known and expected in the art. Whether or not that is true, the concept of loading cannot simply be added to the teachings of Lee to obtain the claimed invention. Claim 18 recites that common rate control commands are broadcast to affect reverse link loading, and that membership in a set of rate-controlled mobile stations is adjusted if a targeted reverse link loading cannot be maintained by broadcasting those commands. Lee does not teach that membership in a set of rate-controlled mobile stations is adjusted in response to a failure to maintain a desired reverse link loading level. Nor does Lee teach adjusting membership in a set of rate-controlled mobile stations in response to any targeted system parameter at all. Lee merely teaches that a mobile station may request permission to move from one classification group to another in response to the mobile station determining that it is transmitting at the maximum (or minimum) data rate associated with the current group. Lee is not only silent with respect to the concept of reverse link loading, but is also silent with respect to adjusting set membership in order to maintain a desired system parameter.

According to the MPEP Section 706.02(j), to support an obvious rejection “the prior art reference (or references when combined) must teach or suggest all the claim limitations.” Furthermore, as stated by the PTO’s *Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in KSR International Co. v. Teleflex Inc.* (72 Fed. Reg. 57526), “[t]he key to supporting any rejection under 35 U.S.C. 103 is

the clear articulation of the reason(s) why the claimed invention would have been obvious” (emphasis added). Here, the Office Action does nothing more than suggest that one of ordinary skill would consider reverse link loading when implementing the system of Lee, in order to “improve system efficiency.” The Office Action does not explain how Lee could be modified, by the addition or substitution of link loading concepts, to obtain the claimed invention.

As noted above, claim 18 recites a limitation comprising “adjusting membership in the set of rate-controlled mobile stations if a targeted reverse link loading cannot be substantially maintained by broadcasting the rate control commands.” Lee cannot be modified to obtain the claimed invention by simply “add[ing] loading of the reverse link to the system of Lee to improve the system efficiency by fully utilizing the reverse link by permitting the mobile customers transmit [sic] at higher data rates with acceptable quality of the link.” (Office Action, p. 5.) The Office Action attempts to support the entire “adjusting membership” limitation quoted above by simply asserting that “loading of an existing communication link is well known.” The obviousness rejection of claim 18 is unsupported by law or fact.

With respect to claims 33 and 34, the Office Action states that “Lee teaches mobile stations operating in two modes, two (or more) data rate groups and the base station approving or disapproving/responding or not responding to the mobile stations requests to move from one data group to the other and therefore operating in the appropriate data group according the [sic] base station response.” (Office Action, p. 5.) Applicant respectfully points out that this is not what is claimed in claim 33 or 34. Claim 33, as amended, recites a method in which a mobile station responds to common rate control commands (broadcast by a serving base station) if in a first mode, and does not respond if in a second mode. Lee does not teach or suggest anything like this at all.

The Office Action appears to suggest that the approval/disapproval messages sent by Lee's base station correspond to the "responding" and "not responding" of claim 33. This ignores several features of the claim. In particular, the claim recites a method of reverse link rate control in a mobile station. This is further clarified by the current amendment to claim 33, which specifies that the rate control commands are received by the mobile station from a serving base station. Thus, the mobile station either responds or does not respond to the rate control commands broadcast by the base station. Lee's approving/disapproving process, which is performed by a base station in response to a request from a mobile station to change groups, does not meet the limitations of claim 33. The rejections of claim 33 and 34 are improper, and should be withdrawn.

Conclusion

Applicant appreciates that the present Office Action indicates that claims 1-16 and 40-56 are allowable if the present rejections under 35 U.S.C. § 112 are overcome. Because no other rejections were applied to claim 17, Applicant submits that the same must be true with respect to claim 17. In view of the present amendments and above arguments, Applicant believes that these claims meet the requirements of Section 112, and respectfully requests acknowledgement of the allowance of these claims. Applicant further submits that the remaining claims 18-39 are allowable over the cited art, in view of the amendments to independent claims 18 and 33 and the arguments presented above. Applicant respectfully reconsideration of the pending claims and allowance of same.

Respectfully submitted,

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